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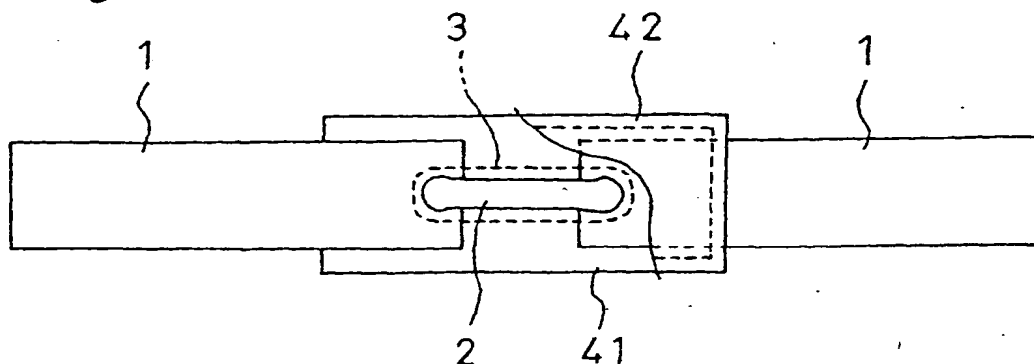
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### (54) Alloy type thermal fuse and fuse element thereof

(57) The invention provides a thermal fuse and a fuse element of the low-melting fusible alloy type in which the fuse element has an alloy composition of 48 to 60% In, 10 to 25% Sn, and the balance Bi, and a total of 0.01 to 7 weight parts of at least one selected from the group consisting of Au, Ag, Cu, Ni, and Pd is added

to 100 weight parts of the composition. As a result, the operating temperature is in the range of 57 to 67°C, requests for environment conservation can be satisfied, the diameter of the fuse element can be made very thin or reduced to about 300  $\mu\text{m}\phi$ , self-heating can be suppressed, and the thermal stability can be satisfactorily guaranteed.

Fig. 1



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# EUROPEAN SEARCH REPORT

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EP 03 00 4435

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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A	PATENT ABSTRACTS OF JAPAN vol. 016, no. 018 (E-1155), 17 January 1992 (1992-01-17) & JP 03 236130 A (UCHIHASHI ESTEC CO LTD), 22 October 1991 (1991-10-22) * abstract; example V *	1-6	
A	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 03, 3 April 2002 (2002-04-03) & JP 2001 325867 A (SORUDAA KOTO KK), 22 November 2001 (2001-11-22) * abstract *	1,4	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C22C H01H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 1 December 2003	Examiner Ramírez Fueyo, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

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01-12-2003

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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